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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/726,769	11/29/2000	Benjamin L. Furman	SWRI-2749A	1922

7590

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EXAMINER

LE, HOA T

ART UNIT

PAPER NUMBER

1773

DATE MAILED: 04/09/2003

15-

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N . 09/726,769	Applicant(s) FURMAN ET AL	
	Examiner H. T. Le	Art Unit 1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20,27-32,39-124 and 128-153 is/are pending in the application.
- 4a) Of the above claim(s) 27-32,39-44,76-85 and 113-124 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20,45-75,86-112 and 128-153 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- | | |
|---|--|
| 15) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 18) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 16) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 19) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 17) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>8, 9&13</u> . | 20) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's argument with respect to the restriction requirement that the claims of Groups II and III are not patentably distinct from the claims of group I because "manufacture, use or sale of the subject matter of the claims in Groups II and III necessarily would involve manufacture, use or sale of the subject matter of the claims in group I". This is not found persuasive for the following reasons. In manufacturing aspect, method of making the material of groups I does not involve processing of alloy or resin as required in the methods of making the products of groups II and III. Therefore, methods of making the products of groups II and III are not applicable in the method of making the product of group I, and vice versa. With regard to use or sale, product of group I is devoid of alloy or resin which is present in the products of groups II & III; therefore, it cannot be seen how the use or sale products of groups II and III would necessarily involve use or sale of the product of group I as argued by applicants.

The requirement is still deemed proper and is therefore made FINAL. Accordingly, claims 27-32, 39-44, 76-85 and 113-124 remain withdrawn from consideration.

Response to Amendment

2. Applicants should note that amendment to claim 26 (page 5 of the response) is not entered because claim 26 has been requested to be canceled in the beginning of the amendment section.
3. Applicants should also note that claims 27-30 as amended are meaningless because they depend on claims 23-26, respectively, which have been canceled by amendment. These claims 27-30 have been withdrawn from consideration for being directed to a non-elected invention as set forth in the last office action and confirmed in the elections/restrictions section above.

Specification

4. Applicants did not properly respond to the question as to the reported Fracture Toughness questioned in the last office action. The Examiner apologizes if the question wasn't clear to Applicants. The question is rephrased as follows. At page 23, it is noted that the Fracture Toughness of 70% silica-filled model resin is reported as " 0.3711 ∓ 0.2033 " (last row, third column). The plus/minus (\mp) sign indicates a fluctuation factor which is shown as 0.2033; that is higher than 50% value of the toughness which is reported at 0.3711. Such value is too large to be a fluctuation. Is this a typographical error?

Claim Rejections - 35 USC § 112

5. Claims 1-20, 45-75, 86-112, and 128-153 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, it's unclear as to (1) whether the "surface" as recited means the surface of each individual particle or of a plurality of particles and (2) whether the term "portion" refers to a portion of the hydroxyl group or a portion on the surface of the particle(s). In addition, the relationship between the surface and the complexed fraction, the reactive and less reactive portion is unclear.

In claim 15, line 4, "said metal oxide" has no antecedent basis.

In claims 45-50, "said mixture" has no antecedent basis.

In claims 52-55, "organofunctional agent" is meaningless. The term "coupling" should be added after "organofunctional".

Claim 86 suffers the same deficiencies of claim 1.

Claim 128, "organofunctional groups" have no antecedent basis. Also "moeities" is not a word.

Claims 129-133, "organofunctional groups" have no clear antecedent basis. Only organofunctional coupling agents are recited in previous claims upon which these claims depend. Also, "moeities" is not a word.

Claims 132 & 133 are queried. Claims 71 & 75 upon which these claims depend require R¹ being an alkyl group having no more than 9 carbons. However, R¹

in claims 133 & 134 is a diallyl-neopentyl group which has a total of 11 carbons (two allyl groups each has 3 carbons and pentyl group itself has 5).

Claim 134, "mobile adhesion promoter" lacks antecedent basis.

Claims 142 and 143 are meaningless because they depend on claims 33 and 38, respectively, which have been canceled.

Claim 148, "mobile adhesion" has no antecedent basis.

Other claims are deemed indefinite in view of their dependency upon either claim 1 or claim 15.

Instant claims are replete with avoidable errors. It is highly recommended that Applicants focus on the quality of claims (perhaps fewer claims that cover the same scope as over hundred claims? Or care/diligence is requested if Applicants insist on a vast quantity of claims).


Information Disclosure Statement

6. The information disclosure statement filed October 31, 2002 has been placed in the application file, but the information referred to therein has not been considered. All of these references do not appear to be related to the claimed invention. These references are not helpful in aiding public in searching for subject matter relevant to the claimed subject matter. Therefore, they have not been considered by the Examiner.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to H. T. Le whose telephone number is 703-308-2415.

Application No. 09/726,769
Art Unit 1773

The examiner can normally be reached on 10:00 a.m. to 6:30 p.m., Mondays to
Friday.



H. T. Le
Primary Examiner
Art Unit 1773

hl
March 10, 2003